TAN-N500/N600

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
TAN-N500/N600
PX Model
TAN-N500

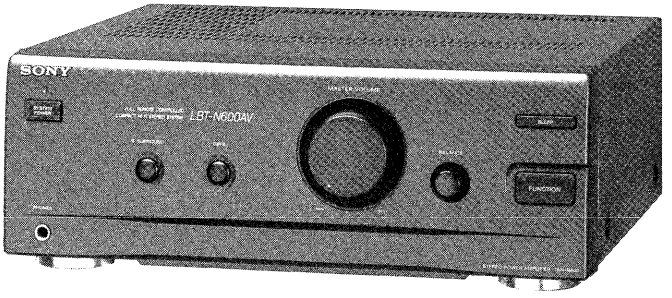

Photo: TAN-N600

TAN-N500/N600 are the Amplifier Section in LBT-N500/N550/550K/550P and LBT-N600AV/N650AV.

SPECIFICATIONS

DIN power output
40 W +40 W (6 ohms, at 1 kHz)
Continuous RMS power output
50 W + 50 W (6 ohms, at 1 kHz, 5% THD)
Music power output
100 W + 100 W (6 ohms, at 1 kHz, 10% THD)
Frequency response
15 Hz to 50 kHz $^{+0}_{-3}$ dB
Power requirements
European models:
220 – 230 V AC, 50/60 Hz
Australian model:
220 – 240 V AC, 50/60 Hz
Malaysian model:
220 – 240 V AC, 50/60 Hz
Mexican model:
120 V AC, 50/60 Hz
Other models:
110 – 120 V or 220 – 240 V AC adjustable, 50/60 Hz

Power consumption
European models:
135 W
Other models:
195 W

Output	Jack type	Impedance
SURROUND SPEAKER (N500)	–	Accepts speakers up to 16 ohms
PHONES	Stereophone	Accepts headphones of 8 ohms or more

Weight Approx. 5.4 kg
Dimensions
Approx. 355 x 130 x 335 mm (w/h/d, including projections)

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFIER

SONY®

SECTION 1
GENERAL

TABLE OF CONTENTS

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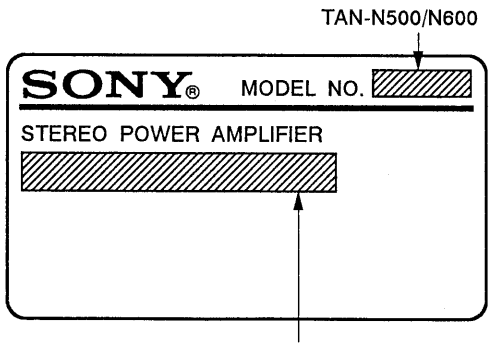
MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –



AEP, German, Italian, East European,
CIS model : AC: 220 V-230 V ~50/60 Hz 135 W
UK model : AC: 220 V-230 V ~50 Hz
Australian,
Malaysia model : AC: 220 V-240 V ~50/60 Hz 195 W
E, Saudi Arabia, Singapore,
PX model: AC: 110 V-120 V/220 V-240 V ~50/60 Hz 195 W
Mexican model: AC: 120 V ~60 Hz 195 W

SAFETY-RELATED COMPONENT WARNING!!

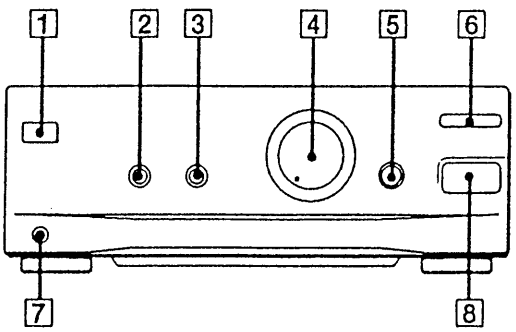
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

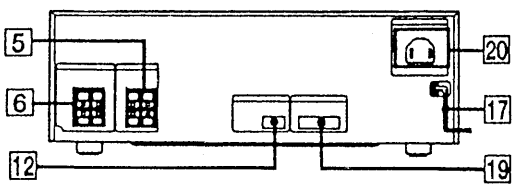
Front Panel

Power Amplifier (TAN-N500/N600)



1 SYSTEM POWER switch
2 SURROUND button (N500)
2 S-SURROUND button (N600)
3 DBFB button
4 VOLUME control (N500)
4 MASTER VOLUME control (N600)
5 BALANCE control
6 SLEEP button
7 PHONES jack
8 FUNCTION button

Rear Panel

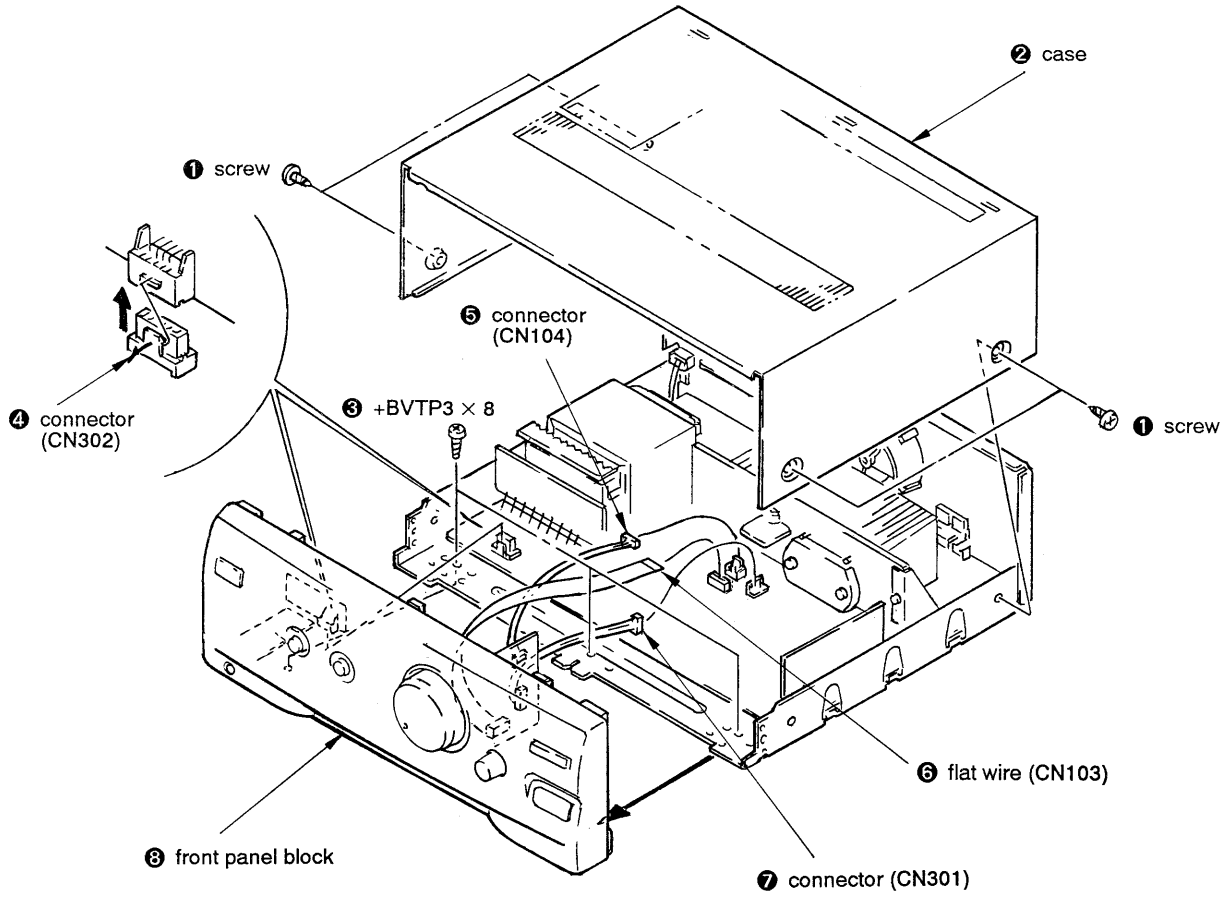


5 SPEAKER connectors
6 SURROUND SPEAKER connectors (N500)
12 SYSTEM CONTROL 4 terminals (N600)
17 AC power cord
19 SYSTEM CONTROL 2 terminals
20 AC OUTLET (N600)

SECTION 2
DISASSEMBLY

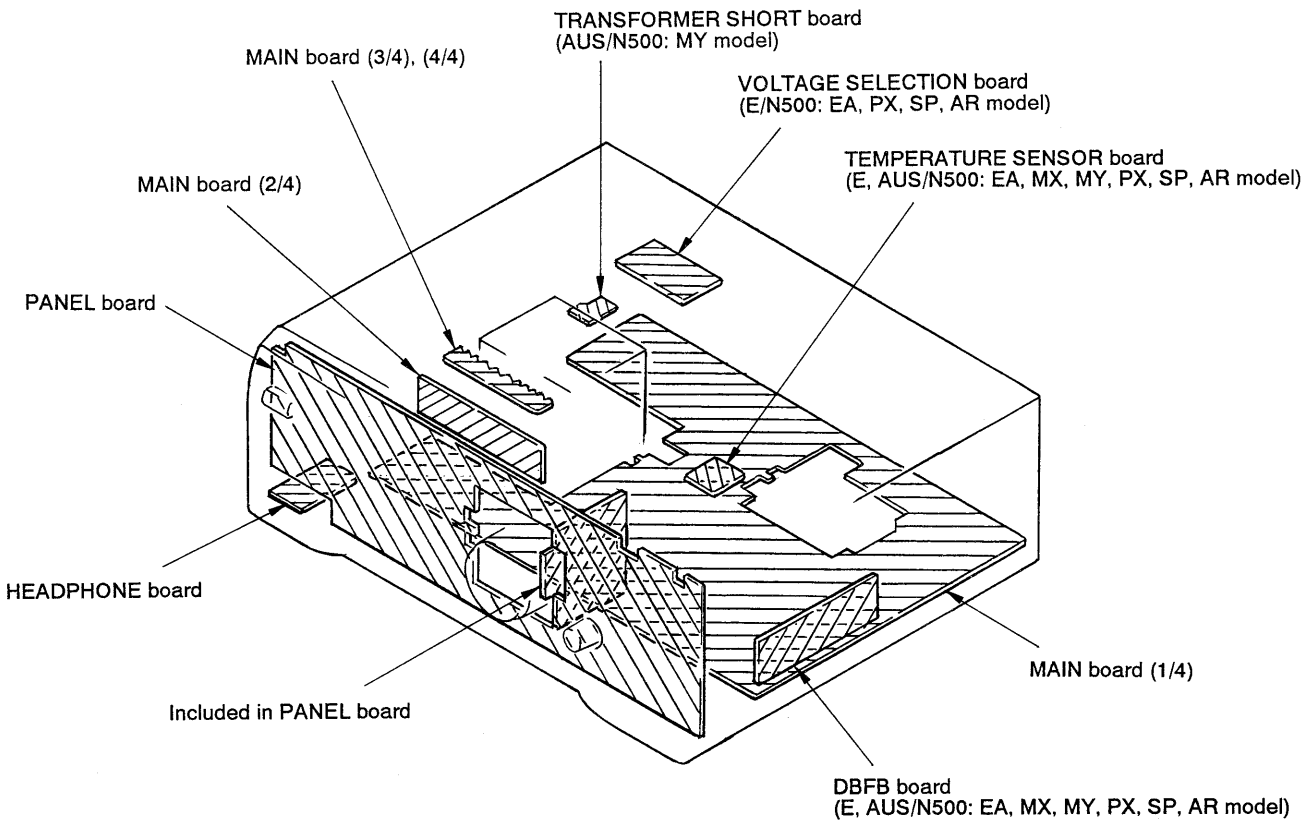
Note: Follow the disassembly procedure in the numerical order given.

FRONT PANEL ASS'Y



SECTION 3
DIAGRAMS

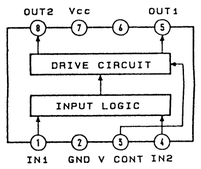
3-1. CIRCUIT BOARDS LOCATION


TRANSFORMER SHORT board
(AUS/N500: MY model)
MAIN board (3/4), (4/4)
VOLTAGE SELECTION board
(E/N500: EA, PX, SP, AR model)
TEMPERATURE SENSOR board
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)
MAIN board (2/4)
PANEL board
HEADPHONE board
MAIN board (1/4)
Included in PANEL board
DBFB board
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)

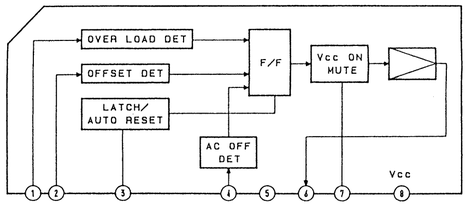
- Abbreviation
  EA : Saudi Arabia model
  MX : Mexican model
  SP : Singapore model
  MY : Malaysia model
  AUS : Australian model
  AR : Argentine model

- **IC Block Diagrams**

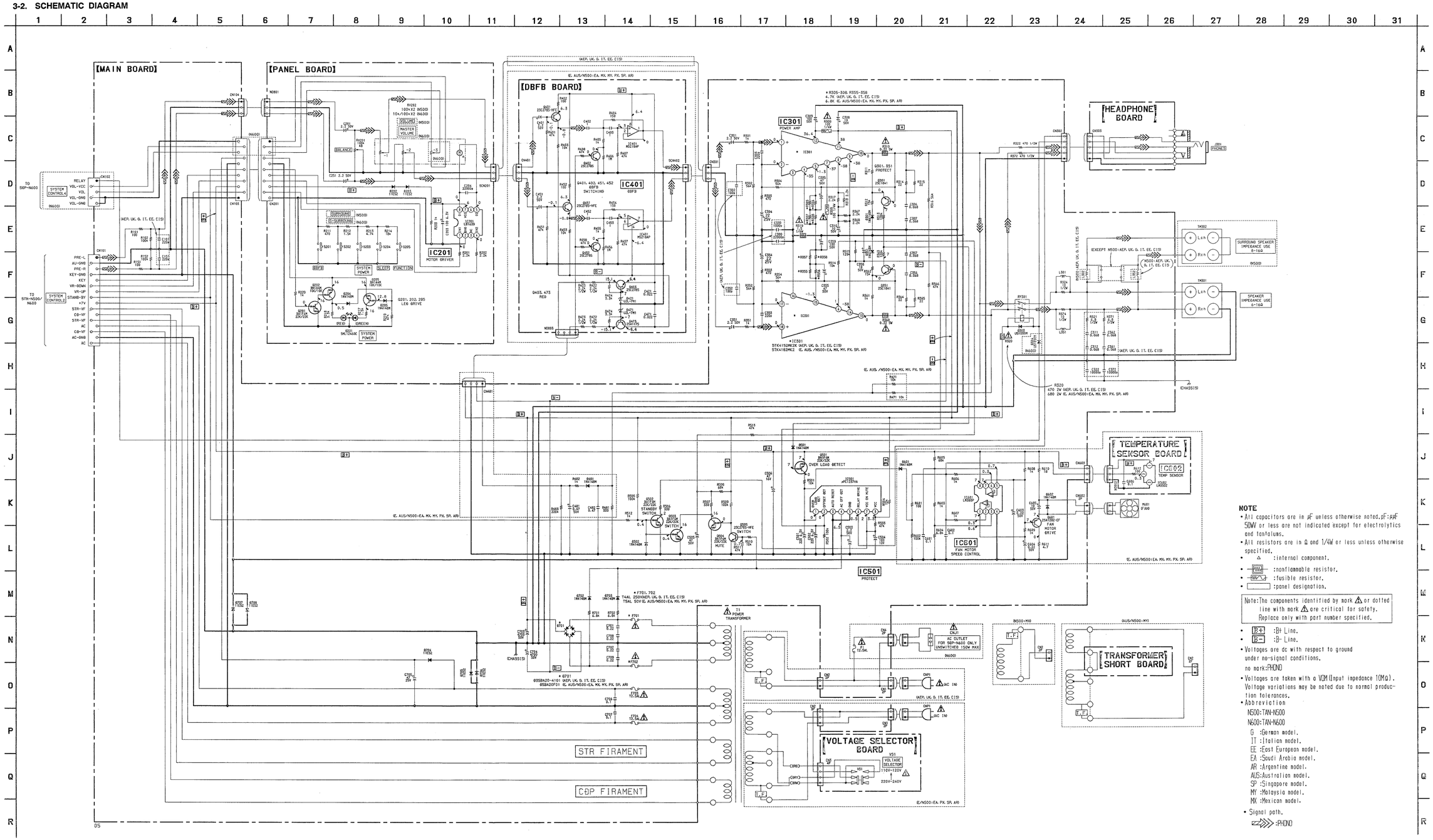
IC201 LB1639



IC501 μPC1237HA



3-2. SCHEMATIC DIAGRAM



NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- :nonflammable resistor.
- :fusible resistor.
- :panel designation.

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

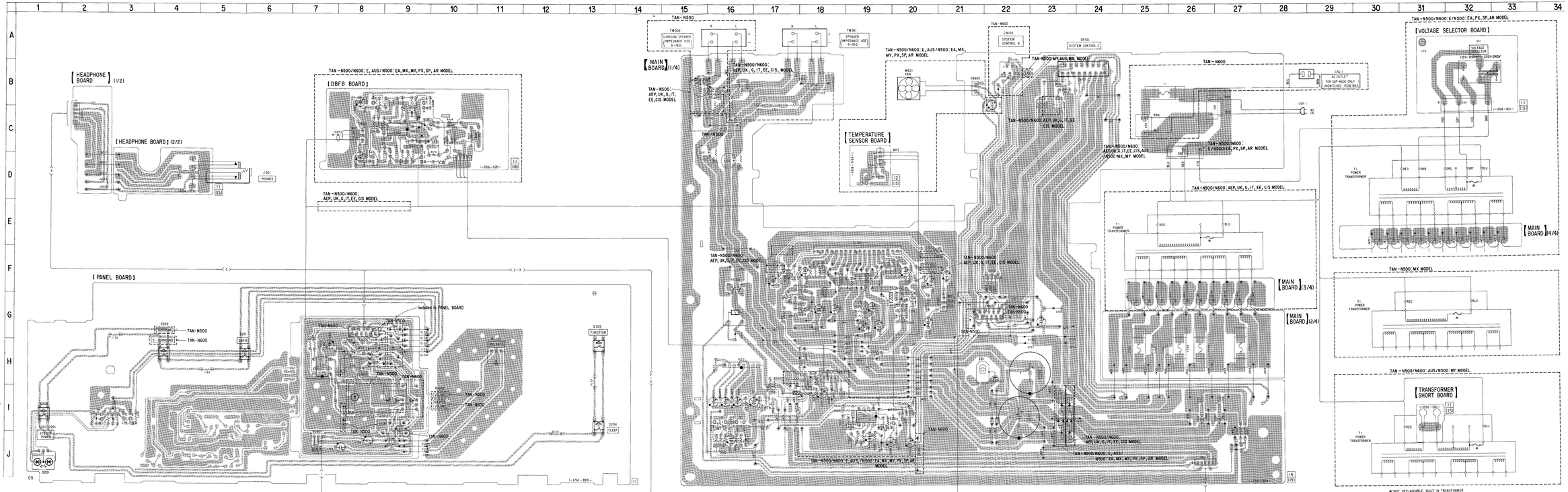
- B+ :B+ Line.
- B− :B− Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark: PHONO
- Voltages are taken with a VOM (input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Abbreviation
  N500: TAN-N500
  N600: TAN-N600
  G :German model.
  IT :Italian model.
  EE :East European model.
  EA :Saudi Arabia model.
  AR :Argentine model.
  AUS: Australian model.
  SP :Singapore model.
  MY :Malaysia model.
  MX :Mexican model.
- Signal path.
  :PHONO

• Semiconductor Location

Ref. No.	Location
D201	J-1
D202	H-8
D203	H-8
D204	I-3
D205	I-2
D301	G-20
D303	G-16
△ D304	B-22
D351	G-18
○ D421	C-9
○ D471	C-9
○ D481	H-18
○ D501	H-18
D502	J-16
○ D601	J-19
○ D602	B-22
D701	I-23
D702	J-27
D703	J-27
D704	G-23
D705	G-23
D706	H-23
D707	H-22
D708	G-22
IC201	H-7
IC301	F-19
○ IC401	C-9
IC501	H-16
○ IC601	I-19
○ IC602	D-19
Q201	I-3
Q202	I-3
Q205	I-2
Q301	G-20
Q351	G-17
○ Q401	D-8
○ Q402	D-9
○ Q451	B-8
○ Q452	B-9
Q501	I-17
Q502	I-16
Q503	I-16
Q504	I-16
Q505	I-16
○ Q601	I-20

Note:
○ : E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
△ : N600

Note:
- ○——○ : parts extracted from the component side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.
- Abbreviations
  - G : German model
  - IT : Italian model
  - EA : Saudi Arabia model
  - EE : East European model
  - MX : Mexican model
  - SP : Singapore model
  - MY : Malaysia model
  - AUS : Australian model
  - AR : Argentine model


[HEADPHONE BOARD] (1/2)
[HEADPHONE BOARD] (2/2)
J301 PHONES
TAN-N500/N600: E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
[DBFB BOARD]
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
[PANEL BOARD]
Included in PANEL BOARD
S202 TONE/BASS
S203 VOLUME
S205 FUNCTION
S204 SLEEP
S201 STEREO/MONO
TAN-N500
TAN-N600
[MAIN BOARD] (1/4)
TAN-N500: AEP, UK, G, IT, EE, CIS MODEL
TAN-N500/N600: E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
TAN-N500/N600: AEP, UK, G, IT, EE, CIS, MODEL
TAN-N500/MY, AUS, MX MODEL
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
TEMPERATURE SENSOR BOARD
TAN-N500/N600: AEP, UK, G, IT, EE, CIS, AUS/N500: MX, MY MODEL
TAN-N500/N600: E, AUS/N500: EA, PX, SP, AR MODEL
[MAIN BOARD] (3/4)
[MAIN BOARD] (2/4)
[MAIN BOARD] (4/4)
[VOLTAGE SELECTOR BOARD]
TAN-N500: MX MODEL
TAN-N500/N600: AUS/N500: MY MODEL
[TRANSFORMER SHORT BOARD]
T1 POWER TRANSFORMER
AC OUTLET (SWITCHED : 150W MAX.)
AC OUTLET FOR SDP-N600 ONLY (UNSWITCHED : 150W MAX.)
※ 2637 REPLACEABLE BUILT IN TRANSFORMER

SECTION 4
EXPLODED VIEWS

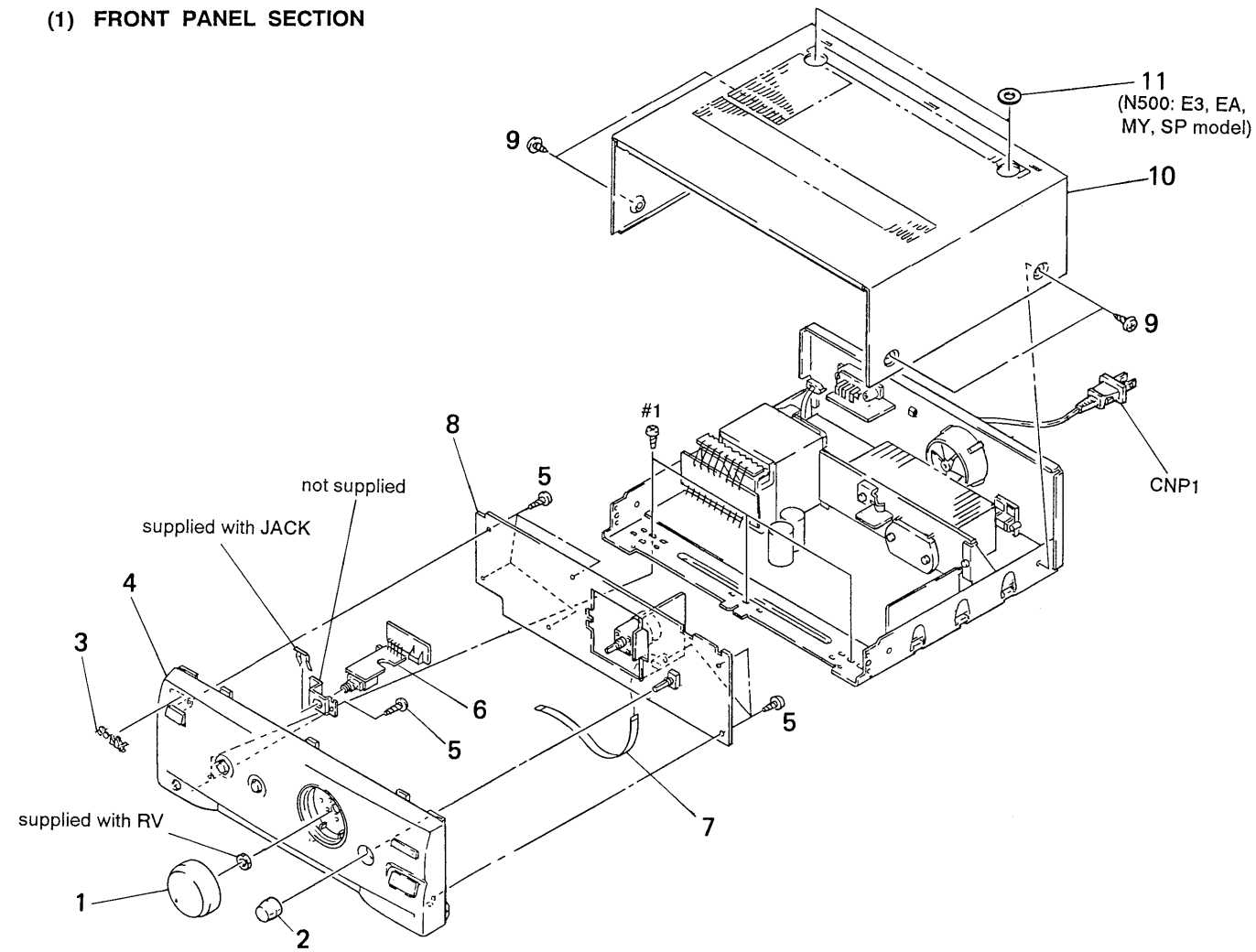
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

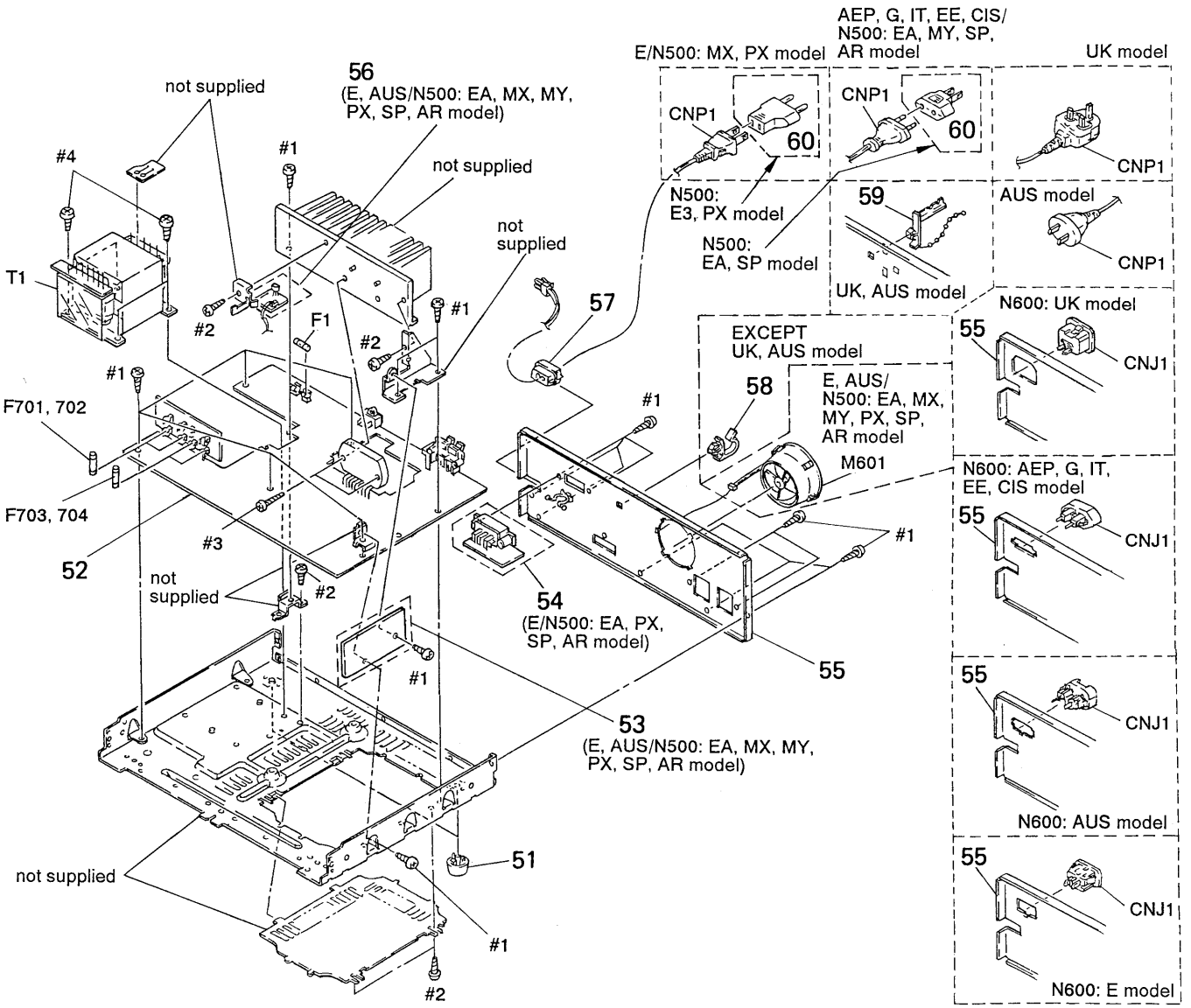
- Abbreviation
  G : German model
  MX : Mexican model
  AR : Argentine model
  IT : Italian model
  SP : Singapore model
  E2 : 120 V AC area
  EA : Saudi Arabia model
  MY : Malaysia model
  E3 : 240 V AC area
  EE : East European model
  AUS : Australian model
  AEP1, G1, IT1, EE1, CIS1 : Model for LBT-N500
  AEP2, UK2, G2, IT2, CIS2 : Model for LBT-N550

(1) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-969-683-11	KNOB (V)	
2	4-962-703-22	KNOB (SUR)	
3	4-963-404-21	EMBLEM (5-A), SONY (EXCEPT N600:AUS, E)	
4	X-4945-603-1	PANEL ASSY, FRONT (N500:AEP1, G1, IT1, EE1, CIS1)	
4	X-4945-604-1	PANEL ASSY, FRONT (N500:E2, MX, PX, AR, AUS, AEP2, UK2, G2, IT2, CIS2)	
4	X-4945-605-1	PANEL ASSY, FRONT (N500:E3, EA, MY, SP)	
4	X-4945-606-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE, CIS)	
4	X-4946-128-1	PANEL ASSY, FRONT (N600:E, AUS)	
5	4-951-620-01	SCREW (2.6X8), +BVTP	
* 6	1-654-890-11	HEADPHONE BOARD	
7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
* 8	A-4377-249-A	PANEL BOARD, COMPLETE (N600)	
* 8	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
* 8	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	4-969-778-11	CASE (N600)	
* 10	4-969-778-51	CASE (N500)	
11	4-975-837-01	STOPPER (N500:E3, EA, MY, SP)	

(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	X-4941-228-1	FOOT ASSY	
* 52	A-4377-248-A	MAIN BOARD, COMPLETE	(N600:AEP, UK, G, IT, EE, CIS)
* 52	A-4377-271-A	MAIN BOARD, COMPLETE	(N500:AEP, UK, G, IT, EE, CIS)
* 52	A-4377-274-A	MAIN BOARD, COMPLETE	(N500:E, EA, PX, SP, AR)
* 52	A-4377-816-A	MAIN BOARD, COMPLETE (N500:MX, MY, AUS)	
* 52	A-4378-418-A	MAIN BOARD, COMPLETE (N600:AUS)	
* 52	A-4378-419-A	MAIN BOARD, COMPLETE (N600:E)	
* 53	A-4378-331-A	DBFB BOARD, COMPLETE	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
* 54	1-654-891-11	VOLTAGE SELECTION BOARD	(E/N500:EA, PX, SP, AR)
* 55	4-969-785-01	PANEL, BACK (N500:AEP, IT)	
* 55	4-969-785-11	PANEL, BACK (N500:G)	
* 55	4-969-785-21	PANEL, BACK (N500:UK)	
* 55	4-969-785-31	PANEL, BACK (N500:EE, CIS)	
* 55	4-970-164-01	PANEL, BACK (N500:E, AR)	
* 55	4-970-164-12	PANEL, BACK (N500:MY)	
* 55	4-970-164-21	PANEL, BACK (N500:SP)	
* 55	4-970-164-31	PANEL, BACK (N500:MX)	
* 55	4-970-164-41	PANEL, BACK (N500:AUS)	
* 55	4-970-164-51	PANEL, BACK (N500:EA, PX)	
* 55	4-970-164-61	PANEL, BACK (N600:E)	
* 55	4-970-164-71	PANEL, BACK (N600:AUS)	
* 55	4-971-710-01	PANEL, BACK (N600:AEP, IT)	
* 55	4-971-710-11	PANEL, BACK (N600:G)	
* 55	4-971-710-21	PANEL, BACK (N600:UK)	
* 55	4-971-710-31	PANEL, BACK (N600:EE, CIS)	
* 56	1-654-892-12	TEMPERATURE SENSOR BOARD	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
* 57	3-703-244-00	BUSHING (2104), CORD	(AEP, UK, G, IT, EE, CIS, AUS/N500:EA, MY, SP, AR)
57	3-703-571-11	BUSHING (S) (4516), CORD (E/N500:MX, PX)	
* 58	4-949-235-01	HOOK	(AEP, G, IT, EE, CIS, E/N500:EA, MX, MY, PX, SP, AR)
59	4-956-370-12	BAND, PLUG FIXED (UK, AUS)	
⚠60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
⚠60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
⚠CNJ1	1-526-751-12	OUTLET, AC (N600:UK)	
⚠CNJ1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
⚠CNJ1	1-526-882-00	OUTLET, AC (N600:E)	
⚠CNJ1	1-540-196-11	OUTLET, AC (N600:AUS)	
⚠CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
⚠CNP1	1-575-651-21	CORD, POWER	(AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)
⚠CNP1	1-696-845-11	CORD, POWER (AUS)	
⚠CNP1	1-751-529-11	CORD, POWER (UK)	
⚠F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
⚠F701	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F702	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	
M601	X-4942-029-1	CASE ASSY, FAN	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

DBFB **MAIN**

SECTION 5
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviation G : Geraman IT : Italian EA : Saudi Arabia EE : East European MX : Mexican
  SP : Singapore MY : Malaysia AUS : Australian AR : Argentine E3 : 240V AC area
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-4378-331-A	DBFB BOARD, COMPLETE (E, AUS/N500:EA, MX, MY, PX, SP, AR)			
		**********			
		< CAPACITOR >			
C401	1-124-257-00	ELECT	2.2uF	20% 50V	
C402	1-136-177-00	FILM	1uF	5% 50V	
C403	1-136-177-00	FILM	1uF	5% 50V	
C421	1-161-494-00	CERAMIC	0.022uF	25V	
C451	1-124-257-00	ELECT	2.2uF	20% 50V	
C452	1-136-177-00	FILM	1uF	5% 50V	
C453	1-136-177-00	FILM	1uF	5% 50V	
C471	1-161-494-00	CERAMIC	0.022uF	25V	
		< CONNECTOR >			
* CN401	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D421	8-719-000-84	DIODE UZL-7M1			
D471	8-719-000-84	DIODE UZL-7M1			
		< IC >			
IC401	8-759-634-51	IC M5218AP			
		< TRANSISTOR >			
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q451	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q452	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q473	8-729-119-76	TRANSISTOR	2SA1175-HFE		
		< RESISTOR >			
R401	1-249-437-11	CARBON	47K	5% 1/4W	
R402	1-247-807-31	CARBON	100	5% 1/4W	
R403	1-249-429-11	CARBON	10K	5% 1/4W	
R404	1-249-407-11	CARBON	150	5% 1/4W	
R405	1-249-417-11	CARBON	1K	5% 1/4W	
R406	1-247-903-00	CARBON	1M	5% 1/4W	
R407	1-249-437-11	CARBON	47K	5% 1/4W	
R408	1-249-437-11	CARBON	47K	5% 1/4W	
R422	1-260-103-11	CARBON	2.2K	5% 1/2W	
R423	1-260-103-11	CARBON	2.2K	5% 1/2W	
R424	1-249-423-11	CARBON	3.3K	5% 1/4W	
R451	1-249-437-11	CARBON	47K	5% 1/4W	
R452	1-247-807-31	CARBON	100	5% 1/4W	
R453	1-249-429-11	CARBON	10K	5% 1/4W	
R454	1-249-407-11	CARBON	150	5% 1/4W	
R455	1-249-417-11	CARBON	1K	5% 1/4W	
R456	1-247-903-00	CARBON	1M	5% 1/4W	
R457	1-249-437-11	CARBON	47K	5% 1/4W	
R458	1-249-437-11	CARBON	47K	5% 1/4W	
R472	1-260-103-11	CARBON	2.2K	5% 1/2W	
R473	1-260-103-11	CARBON	2.2K	5% 1/2W	
R474	1-249-423-11	CARBON	3.3K	5% 1/4W	
		**********			
*	A-4377-248-A	MAIN BOARD, COMPLETE (N600:AEP, UK, G, IT, EE, CIS)			
*	A-4377-271-A	MAIN BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)			
*	A-4377-274-A	MAIN BOARD, COMPLETE (N500:E, EA, PX, SP, AR)			
*	A-4377-816-A	MAIN BOARD, COMPLETE (N500:MX, MY, AUS)			
*	A-4378-418-A	MAIN BOARD, COMPLETE (N600:AUS)			
*	A-4378-419-A	MAIN BOARD, COMPLETE (N600:E)			
		**********			
	1-533-217-31	HOLDER, FUSE			
	1-537-770-11	TERMINAL BOARD, GROUND			
		< CAPACITOR >			
C101	1-162-286-31	CERAMIC	220PF	10% 50 (AEP, UK, G, IT, EE, CIS)	
C151	1-162-286-31	CERAMIC	220PF	10% 50V (AEP, UK, G, IT, EE, CIS)	
C301	1-124-925-11	ELECT	2.2uF	20% 100V	
C302	1-162-282-31	CERAMIC	100PF	10% 50V (AEP, UK, G, IT, EE, CIS)	

Ref. No.	Part No.	Description			Remark
C303	1-162-286-31	CERAMIC	220PF	10%	50V
C304	1-126-233-11	ELECT	22uF	20%	50V
C305	1-124-910-11	ELECT	47uF	20%	50V
C306	1-137-375-11	FILM	0.068uF	5%	50V
C307	1-137-375-11	FILM	0.068uF	5%	50V
C308	1-124-907-11	ELECT	10uF	20%	50V
C309	1-124-122-11	ELECT	100uF	20%	50V
C310	1-124-907-11	ELECT	10uF	20%	50V
C311	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C312	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C322	1-162-306-11	CERAMIC	0.01uF	20%	16V (N500:AEP, UK, G, IT, EE, CIS)
C330	1-162-294-31	CERAMIC	0.001uF	10%	50V (AEP, UK, G, IT, EE, CIS)
C351	1-124-925-11	ELECT	2.2uF	20%	100V
C352	1-162-282-31	CERAMIC	100PF	10%	50V (AEP, UK, G, IT, EE, CIS)
C353	1-162-286-31	CERAMIC	220PF	10%	50V
C354	1-126-233-11	ELECT	22uF	20%	50V
C355	1-124-910-11	ELECT	47uF	20%	50V
C356	1-137-375-11	FILM	0.068uF	5%	50V
C357	1-137-375-11	FILM	0.068uF	5%	50V
C358	1-124-907-11	ELECT	10uF	20%	50V
C359	1-124-122-11	ELECT	100uF	20%	50V
C361	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C362	1-137-375-11	FILM	0.068uF	5%	50V (AEP, UK, G, IT, EE, CIS)
C372	1-162-306-11	CERAMIC	0.01uF	20%	16V (AEP, UK, G, IT, EE, CIS)
C380	1-161-494-00	CERAMIC	0.022uF		25V (AEP, UK, G, IT, EE, CIS)
C481	1-124-902-00	ELECT	0.47uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C482	1-136-173-00	FILM	0.47uF	5%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C501	1-104-666-11	ELECT	220uF	20%	6.3V
C502	1-104-666-11	ELECT	220uF	20%	6.3V
C503	1-124-925-11	ELECT	2.2uF	20%	100V
C504	1-124-443-00	ELECT	100uF	20%	10V
C505	1-124-910-11	ELECT	47uF	20%	50V
C506	1-104-664-11	ELECT	47uF	20%	16V
C601	1-164-159-11	CERAMIC	0.1uF		50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C602	1-164-159-11	CERAMIC	0.1uF		50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C603	1-124-464-11	ELECT	0.22uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C604	1-124-464-11	ELECT	0.22uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C605	1-124-907-11	ELECT	10uF	20%	50V (E, AUS/N500:EA, MX, MY, PX, SP, AR)
C701	1-136-169-00	FILM	0.22uF	5%	50V
C702	1-136-169-00	FILM	0.22uF	5%	50V
C703	1-126-138-11	ELECT	4700uF	20%	50V
C704	1-126-138-11	ELECT	4700uF	20%	50V
C705	1-124-477-11	ELECT	47uF	20%	25V
C706	1-136-165-00	FILM	0.1uF	5%	50V
C707	1-136-165-00	FILM	0.1uF	5%	50V
C708	1-136-169-00	FILM	0.22uF	5%	50V
C709	1-136-169-00	FILM	0.22uF	5%	50V

< CONNECTOR >

CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN2	1-564-321-00	PIN, CONNECTOR 2P (AEP, UK, G, IT, EE, CIS, AUS, /N500:MX, MY)	
* CN2	1-564-687-11	PIN, CONNECTOR 3P (E/N500:EA, PX, SP, AR)	
* CN4	1-564-321-21	PIN, CONNECTOR 2P (N600)	
CN101	1-770-248-31	HOUSING, CONNECTOR (PC BOARD) 16P (SYSTEM CONTROL 2)	
CN102	1-764-016-21	HOUSING, CONNECTOR (PC BOARD) 5P (SYSTEM CONTROL 4) (N600)	
* CN103	1-568-828-11	SOCKET, CONNECTOR 9P (N500)	
* CN103	1-568-830-11	SOCKET, CONNECTOR 11P (N600)	
CN104	1-506-468-11	PIN, CONNECTOR 3P	
CN301	1-564-506-11	PLUG, CONNECTOR 3P	
CN302	1-770-594-21	CONNECTOR, BOARD TO BOARD 5P	
CN481	1-506-469-11	PIN, CONNECTOR 4P (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
CN602	1-564-505-11	PLUG, CONNECTOR 2P (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
CN603	1-506-468-11	PIN, CONNECTOR 3P (E, AUS/N500:EA, MX, MY, PX, SP, AR)	

< DIODE >

D301	8-719-987-63	DIODE	1N4148M
D303	8-719-815-85	DIODE	1S1585
D304	8-719-815-85	DIODE	1S1585 (N600)
D351	8-719-987-63	DIODE	1N4148M

MAIN

Ref. No.	Part No.	Description	Remark
D481	8-719-987-63	DIODE 1N4148M	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D601	8-719-987-63	DIODE 1N4148M	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D602	8-719-987-63	DIODE 1N4148M	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D701	8-719-028-23	DIODE D3SBA20-4101	
			(AEP, UK, G, IT, EE, CIS)
D701	8-719-510-68	DIODE D5SBA20F01	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-024-99	DIODE 11ES2-NTA2B	
D705	8-719-024-99	DIODE 11ES2-NTA2B	
D706	8-719-024-99	DIODE 11ES2-NTA2B	
D707	8-719-024-99	DIODE 11ES2-NTA2B	
D708	8-719-024-99	DIODE 11ES2-NTA2B	
		< FUSE >	
⚠F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
⚠F701	1-532-299-00	FUSE (T5A 250V)	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F702	1-532-299-00	FUSE (T5A 250V)	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	
		< IC >	
IC301	8-749-920-09	IC STK-4152MK2K (AEP, UK, G, IT, EE, CIS)	
IC301	8-749-900-34	IC STK-4182MK2	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
IC501	8-759-111-68	IC uPC1237HA	
IC601	8-759-103-93	IC uPC393C	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
		< COIL >	
L301	1-420-872-00	COIL, AIR-CORE	
L302	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
L351	1-420-872-00	COIL, AIR-CORE	
L352	1-420-872-00	COIL, AIR-CORE (N500:AEP, UK, G, IT, EE, CIS)	
		< TRANSISTOR >	
Q301	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q351	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q501	8-729-900-63	TRANSISTOR DTA124ES	
Q502	8-729-900-36	TRANSISTOR DTC124ES	
Q503	8-729-900-36	TRANSISTOR DTC124ES	
Q504	8-729-900-36	TRANSISTOR DTC124ES	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-140-93	TRANSISTOR 2SB733-34	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
		< RESISTOR >	
R101	1-247-807-31	CARBON 100 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R151	1-247-807-31	CARBON 100 5% 1/4W	
R152	1-249-441-11	CARBON 100K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-438-11	CARBON 56K 5% 1/4W	
R303	1-249-413-11	CARBON 470 5% 1/4W	
R304	1-249-438-11	CARBON 56K 5% 1/4W	
R305	1-249-425-11	CARBON 4.7K 5% 1/4W	
			(AEP, UK, G, IT, EE, CIS)
R305	1-249-427-11	CARBON 6.8K 5% 1/4W	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R306	1-249-425-11	CARBON 4.7K 5% 1/4W	
			(AEP, UK, G, IT, EE, CIS)
R306	1-249-427-11	CARBON 6.8K 5% 1/4W	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R307	1-249-425-11	CARBON 4.7K 5% 1/4W	
			(AEP, UK, G, IT, EE, CIS)
R307	1-249-427-11	CARBON 6.8K 5% 1/4W	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R308	1-249-425-11	CARBON 4.7K 5% 1/4W	
			(AEP, UK, G, IT, EE, CIS)
R308	1-249-427-11	CARBON 6.8K 5% 1/4W	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠R309	1-212-881-11	FUSIBLE 100 5% 1/4W F	
⚠R310	1-217-156-00	WIREWOUND 0.22 10% 5W F	
R311	1-249-417-11	CARBON 1K 5% 1/4W	
R312	1-249-431-11	CARBON 15K 5% 1/4W	
R313	1-249-441-11	CARBON 100K 5% 1/4W	
R314	1-249-397-11	CARBON 22 5% 1/4W	
R315	1-249-397-11	CARBON 22 5% 1/4W	
R316	1-249-438-11	CARBON 56K 5% 1/4W	
R317	1-249-421-11	CARBON 2.2K 5% 1/4W	
R318	1-249-421-11	CARBON 2.2K 5% 1/4W	
⚠R319	1-249-383-11	CARBON 1.5 5% 1/6W F	
⚠R320	1-215-890-11	METAL OXIDE 470 5% 2W F	
			(AEP, UK, G, IT, EE, CIS)
⚠R320	1-215-891-11	METAL OXIDE 680 5% 2W F	
			(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R321	1-260-074-11	CARBON 6.8 5% 1/2W	
			(AEP, UK, G, IT, EE, CIS)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R322	1-260-095-11	CARBON	470	5%	1/2W	
R324	1-260-076-11	CARBON	10	5%	1/2W	
R351	1-249-417-11	CARBON	1K	5%	1/4W	
R352	1-249-438-11	CARBON	56K	5%	1/4W	
R353	1-249-413-11	CARBON	470	5%	1/4W	
R354	1-249-438-11	CARBON	56K	5%	1/4W	
R355	1-249-425-11	CARBON	4.7K	5%	1/4W	(AEP, UK, G, IT, EE, CIS)
R355	1-249-427-11	CARBON	6.8K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R356	1-249-425-11	CARBON	4.7K	5%	1/4W	(AEP, UK, G, IT, EE, CIS)
R356	1-249-427-11	CARBON	6.8K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R357	1-249-425-11	CARBON	4.7K	5%	1/4W	(AEP, UK, G, IT, EE, CIS)
R357	1-249-427-11	CARBON	6.8K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R358	1-249-425-11	CARBON	4.7K	5%	1/4W	(AEP, UK, G, IT, EE, CIS)
R358	1-249-427-11	CARBON	6.8K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠R359	1-212-881-11	FUSIBLE	100	5%	1/4W F	
⚠R360	1-217-156-00	WIREWOUND	0.22	10%	5W F	
R361	1-249-417-11	CARBON	1K	5%	1/4W	
R362	1-249-431-11	CARBON	15K	5%	1/4W	
R363	1-249-441-11	CARBON	100K	5%	1/4W	
R364	1-249-397-11	CARBON	22	5%	1/4W	
R365	1-249-397-11	CARBON	22	5%	1/4W	
R366	1-249-437-11	CARBON	47K	5%	1/4W	
R367	1-249-421-11	CARBON	2.2K	5%	1/4W	
R368	1-249-421-11	CARBON	2.2K	5%	1/4W	
R371	1-260-074-11	CARBON	6.8	5%	1/2W	(AEP, UK, G, IT, EE, CIS)
R372	1-260-095-11	CARBON	470	5%	1/2W	
R374	1-260-076-11	CARBON	10	5%	1/2W	
R421	1-249-429-11	CARBON	10K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R471	1-249-429-11	CARBON	10K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R481	1-249-411-11	CARBON	330	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R482	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R483	1-247-887-00	CARBON	220K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R501	1-249-429-11	CARBON	10K	5%	1/4W	
R502	1-249-441-11	CARBON	100K	5%	1/4W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	
R504	1-249-430-11	CARBON	12K	5%	1/4W	
R505	1-249-441-11	CARBON	100K	5%	1/4W	
R506	1-249-411-11	CARBON	330	5%	1/4W	
R507	1-249-411-11	CARBON	330	5%	1/4W	
R508	1-249-439-11	CARBON	68K	5%	1/4W	
R509	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-429-11	CARBON	10K	5%	1/4W	
R511	1-249-437-11	CARBON	47K	5%	1/4W	
R512	1-249-417-11	CARBON	1K	5%	1/4W	
R513	1-249-437-11	CARBON	47K	5%	1/4W	
R514	1-249-429-11	CARBON	10K	5%	1/4W	
R515	1-247-881-00	CARBON	120K	5%	1/4W	
R601	1-247-807-31	CARBON	100	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R602	1-249-441-11	CARBON	100K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R603	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R604	1-249-427-11	CARBON	6.8K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R605	1-249-439-11	CARBON	68K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R606	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R607	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R608	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R609	1-249-417-11	CARBON	1K	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R610	1-249-396-11	CARBON	18	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R611	1-249-389-11	CARBON	4.7	5%	1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R701	1-249-427-11	CARBON	6.8K	5%	1/4W	
R702	1-249-427-11	CARBON	6.8K	5%	1/4W	

< RELAY >

RY301	1-515-920-11	RELAY (24V)	

< TRANSFORMER >

⚠T1	1-427-773-11	TRANSFORMER, POWER	(AEP, UK, G, IT, EE, CIS)
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER	(N500:MX)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

MAIN | PANEL | HEADPHONE | TEMPERATURE SENSOR

VOLTAGE SELECTION

Ref. No.	Part No.	Description			Remark
		< TERMINAL >			
TM301	1-537-842-11	TERMINAL BOARD (SPEAKER) (AEP, UK, G, IT, EE, CIS)			
TM301	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER) (E, AUS/N500:EA, MX, MY, PX, SP, AR)			
TM302	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SURROUND SPEAKER) (N500)			
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*	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)			
*	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)			
*	A-4377-249-A	PANEL BOARD, COMPLETE (N600)			
		**********			
		< CAPACITOR >			
C201	1-124-925-11	ELECT	2.2uF	20%	100V
C203	1-124-443-00	ELECT	100uF	20%	10V
C204	1-161-494-00	CERAMIC	0.022uF		25V
C251	1-124-925-11	ELECT	2.2uF	20%	100V
		< CONNECTOR >			
* CN201	1-568-830-11	SOCKET, CONNECTOR 11P (N600)			
* CN201	1-568-828-11	SOCKET, CONNECTOR 9P (N500)			
		< DIODE >			
D201	8-719-045-39	LED SML12460C-TP4 (SYSTEM POWER)			
D202	8-719-024-99	DIODE 11ES2-NTA2B			
D203	8-719-024-99	DIODE 11ES2-NTA2B			
D204	8-719-987-63	DIODE 1N4148M			
D205	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC201	8-759-820-62	IC LB1639			
		< TRANSISTOR >			
Q201	8-729-900-36	TRANSISTOR DTC124ES			
Q202	8-729-422-57	TRANSISTOR UN4111			
Q205	8-729-422-57	TRANSISTOR UN4111			
		< RESISTOR >			
R201	1-249-421-11	CARBON	2.2K	5%	1/4W
R202	1-249-421-11	CARBON	2.2K	5%	1/4W
R203	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-413-11	CARBON	470	5%	1/4W
R212	1-249-419-11	CARBON	1.5K	5%	1/4W
R213	1-249-425-11	CARBON	4.7K	5%	1/4W
R214	1-249-432-11	CARBON	18K	5%	1/4W
R217	1-249-419-11	CARBON	1.5K	5%	1/4W
R218	1-249-423-11	CARBON	3.3K	5%	1/4W
R219	1-249-437-11	CARBON	47K	5%	1/4W
R220	1-249-417-11	CARBON	1K	5%	1/4W
		< VARIABLE RESISTOR >			
RV201	1-223-847-11	RES, VAR, CARBON 100K (BALANCE)			
RV202	1-223-845-11	RES, VAR, CARBON 10K/100KX2 (MASTER VOLUME) (N600)			
RV202	1-223-844-11	RES, VAR, CARBON 100KX2 (VOLUME) (N500)			
		< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (DBFB)			
S202	1-554-303-21	SWITCH, TACTILE (SURROUND) (N500)			
S202	1-554-303-21	SWITCH, TACTILE (S-SURROUND) (N600)			
S203	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)			
S204	1-554-303-21	SWITCH, TACTILE (SLEEP)			
S205	1-554-303-21	SWITCH, TACTILE (FUNCTION)			
**********					
*	1-654-890-11	HEADPHONE BOARD			
		**********			
		< CONNECTOR >			
CN303	1-770-593-41	CONNECTOR, BOARD TO BOARD 5P			
		< JACK >			
J301	1-580-903-11	JACK, LARGE TYPE (PHONES)			
**********					
*	1-654-892-12	TEMPERATURE SENSOR BOARD (E, AUS/N500:EA, MX, MY, PX, SP, AR)			
		**********			
		< CAPACITOR >			
C606	1-164-159-11	CERAMIC	0.1uF		50V
		< IC >			
IC602	8-759-947-34	IC LM35DZ			
		< RESISTOR >			
R612	1-247-807-31	CARBON	100	5%	1/4W
**********					
*	1-654-891-11	VOLTAGE SELECTION BOARD (E/N500:EA, PX, SP, AR)			
		**********			
		< CAPACITOR >			
CN3	1-568-106-11	PIN, CONNECTOR 4P			

Ref. No.	Part No.	Description	Remark
		< VOLTAGE SELECTOR >	
⚠VS1	1-762-298-11	SW, AC POWER VOLTAGE SELECTOR	(VOLTAGE SELECTOR)

****

MISCELLANEOUS
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7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
⚠60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
⚠60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
⚠CNJ1	1-526-751-12	OUTLET, AC (N600:UK)	
⚠CNJ1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
⚠CNJ1	1-526-882-00	OUTLET, AC (N600:E)	
⚠CNJ1	1-540-196-11	OUTLET, AC (N600:AUS)	
⚠CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
⚠CNP1	1-575-651-21	CORD, POWER	(AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)
⚠CNP1	1-696-845-11	CORD, POWER (AUS)	
⚠CNP1	1-751-529-11	CORD, POWER (UK)	
⚠F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
⚠F701	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F702	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	
⚠T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	

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HARDWARE LIST
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#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S
#4	7-682-560-04	SCREW +BVTT 4X6 (S)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

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